IN THE CLAIMS

What is claimed is:

1. A polymer binder for a fibrous sheet comprising:

an anionic polymer having a negative charge of between about 4 to about 12 milliequivalents per gram; and

a cationic polymer having a positive charge of between about 6 to about 12 milliequivalents per gram.

2. The binder of claim 1, wherein the molar ratio of total polyanion acid groups to total polycation groups is between about 10:1 to about 1.1:1.

3. The binder of claim 2, wherein the molar ratio of anionic polymer to cationic polymer is about 3:1.

4. The binder of claim 1, wherein the molecular size of the anionic polymer is between about 10,000 to about 900,000 grams per mole.

5. The binder of claim 1, wherein the anionic polymer is crosslinked.

6. The binder of claim 5, wherein the anionic polymer has a crosslinked density of up to about 1 per 50 units.

7. The binder of claim 1, wherein the molecular size of the cationic polymer is between about 10,000 to about 900,000 grams per mole.

8. The binder of claim 1, wherein the binder forms an interpolyelectrolyte complex.

9. The binder of claim 1, further including a spacer selected from the group consisting of a polysaccharide, a hydrogel, a latex and combinations thereof.

10. The binder of claim 9, wherein the polysaccharide comprises starch.

11. The binder of claim 1, further including a surfactant.

12. The binder of claim 11, wherein the surfactant is selected from the group consisting of alkylamines, fatty amines and combinations thereof.

13. The binder of claim 1, wherein anionic polymer to cationic polymer charge ratio is about 1:1.

14. The binder of claim 1, wherein the anionic polymer is selected from the group consisting of polycarbohydrates, polyphosphates, polysulfonates, polysulfates and combinations thereof.

15. The binder of claim 1, wherein the cationic polymer is selected from the group consisting of polymeric amine.

16. The binder of claim 15, wherein the polymeric amine is selected from the group consisting of primary amines, secondary amines, tertiary amines, quaternary amines and combinations thereof.

17. The binder of claim 1, wherein the anionic polymer is weakly acidic.

18. A method of forming a fibrous sheet comprising:

forming a fibrous slurry;

mixing into the fibrous slurry an anionic polymer having a negative charge of between about 4 to about 12 milliequivalents per gram;

mixing into the fibrous slurry a cationic polymer having a positive charge of between about 6 to about 12 milliequivalents per gram; and

drying the fibrous sheet to form the fibrous sheet.

19. The method of claim 18, wherein the molar ratio of total polyanion acid groups to total polycation groups is between about 10:1 to about 1.1:1.

20. The method of claim 19, wherein the molar ratio of anionic polymer to cationic polymer is about 3:1 .

21. The method of claim 18, wherein the molecular size of the anionic polymer is between about 10,000 to about 900,000 grams per mole.

22. The method of claim 18, wherein the molecular size of the cationic polymer is between about 10,000 to about 900,000 grams per mole.

23. The method of claim 18, wherein the binder forms an interpolyelectrolyte complex.

24. The method of claim 18, further including a polysaccharide.

25. The method of claim 24, wherein the polysaccharide comprises starch.

26. The method of claim 18, wherein anionic polymer to cationic polymer charge ratio is about 1:1.

27. The method of claim 18, wherein the anionic polymer is selected from the group consisting of polycarbohydrates, polyphosphates, polysulfonates, polysulfates and combinations thereof.

28. The method of claim 18, wherein the cationic polymer is selected from the group consisting of polymeric amine.

29. The method of claim 28, wherein the polymeric amine is selected from the group consisting of primary amines, secondary amines, tertiary amines, quaternary amines and combinations thereof.

30. The method of claim 18, wherein the anionic polymer is weakly acidic.

31. A fibrous sheet comprising:

at least one type of fiber;

an anionic polymer having a negative charge of between about 4 to about 12 milliequivalents per gram; and

a cationic polymer having a positive charge of between about 6 to about 12 milliequivalents per gram.

32. The fibrous sheet of claim 31, wherein the molar ratio of total polyanion acid groups to total polycation groups is between about 10:1 to about 1.1:1.

33. The fibrous sheet of claim 32, wherein the molar ratio of anionic polymer to cationic polymer is about 3:1 .

34. The fibrous sheet of claim 31, wherein the molecular size of the anionic polymer is between about 10,000 to about 900,000 grams per mole.

35. The fibrous sheet of claim 31, wherein the molecular size of the cationic polymer is between about 10,000 to about 900,000 grams per mole.

36. The fibrous sheet of claim 31, wherein the binder forms an interpolyelectrolyte complex.

37. The fibrous sheet of claim 31, further including a polysaccharide.

38. The fibrous sheet of claim 37, wherein the polysaccharide comprises starch.

39. The fibrous sheet of claim 31, wherein anionic polymer to cationic polymer charge ratio is about 1:1.

40. The fibrous sheet of claim 31, wherein the anionic polymer is selected from the group consisting of polycarbohydrates, polyphosphates, polysulfonates, polysulfates and combinations thereof.

41. The fibrous sheet of claim 31, wherein the cationic polymer is selected from the group consisting of polymeric amine.

42. The fibrous sheet of claim 41, wherein the polymeric amine is selected from the group consisting of primary amines, secondary amines, tertiary amines, quaternary amines and combinations thereof.

43. The fibrous sheet of claim 31, wherein the anionic polymer is weakly acidic.